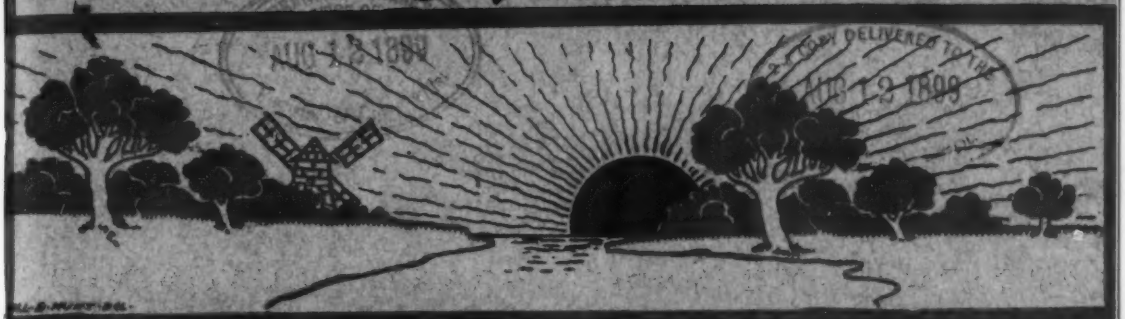

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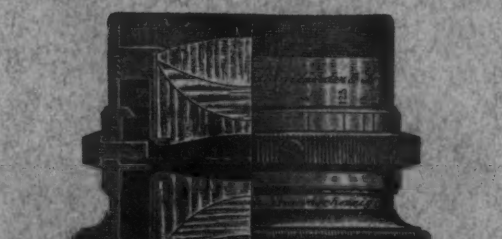

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Be sure that all traces of Hypo are eliminated from the plate to be intensified.

Place the plate in above solution and rock slowly, until intensification is complete, which, as a rule, will be in about three minutes.

Wash well from ten to fifteen minutes in frequent changes, or preferably running water, and then leave the negative to dry.

The solution may be used over and over again, but the action necessarily becomes slower as the bath becomes exhausted.

In the case of negatives that have already been dried, soak for some time in plain water, in order to get the gelatine thoroughly saturated, thereby ensuring the equal action of **Agfa** all over the plate.

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PHOTO ERA

VOL. III JULY, 1899 NO. 2

Walter Sprange HAWARDEN VILLAGE, WALES *Franklin Process Eng. Co.*

Hawarden, the Home of Gladstone

WALTER SPRANGE

HAWARDEN is an old market town in north Wales, about eight miles from Chester in England. There is a little railway station at Buckley, which is only two miles from the village of Hawarden, but by far the pleasanter way to reach Hawarden Castle is to drive there from Chester, a distance of about six miles. By this method one can be independent of railway time-tables and can also enjoy the peaceful rural scenery along the road on either side, from the outskirts of Chester until the large gates of the Hawarden estate are reached.

Indeed, it is well for all who visit dear old England during the open season for sight seeing, to abandon the railway for the highway, on every possible occasion, when the distances to be travelled are not too great, for England is a country of good roads and charming drives, but when viewed from the uncomfortable railway coaches, still largely used there, much that is beautiful is lost to sight. This is due, also, to

Walter Sprange THE GLADSTONE LIVERY

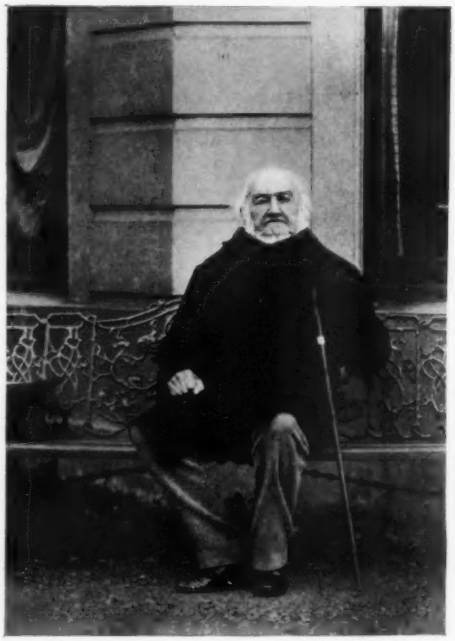
a great extent, to the fact that English scenery is largely of a local rustic character, which does not impress one from the distance, as do the bolder sweeps of river and mountain scenery in the clearer atmosphere of the United States or Switzerland.

The accompanying picture of the "Grand Old Man" was taken at his home a few months before his death.

The original castle of Hawarden, of which only the ruins remain, was granted by William the Conqueror to Hugh Lupton, his nephew, and, after many vicissitudes, it became the property of Sergeant Glynne, lord chief justice under Cromwell. The present castle was built near the ruins of the old castle, in 1752, and, in 1814, was extended and remodeled in its present gothic style.

Hawarden Castle was the scene of the brilliant double wedding, on July 25, 1839, of Miss Catharine Glynne to the late Mr. William E. Gladstone, and Miss Mary Glynne to the late Lord Lyttleton. At that time, the estate was owned by a brother of the brides, the late Sir Stephen R. Glynne, who was the ninth and last of that line of baronets, and at the invitation of Sir Stephen Glynne, Mr. and Mrs. William E. Gladstone made Hawarden their home, Mr. Gladstone having, up to that time, always resided on his father's (Sir John Gladstone) estate in Fasque, Kincardinshire.

Some years later, Sir Stephen R. Glynne, being unmarried, made over all his property to his nephew, William Henry Gladstone (the eldest son of Mr. and Mrs. William E. Gladstone) who married the Honorable Gertrude Stuart, daughter of Lord Blantyre, in 1875; but William Henry Gladstone died on July 4, 1891, and the



Walter Sprange WILLIAM E. GLADSTONE

HAWARDEN CASTLE

estate will eventually become the property of his eldest son, William Glynne Charles Gladstone, who was born in 1885.

The castle and grounds, however, belong to Mrs. William E. Gladstone during her lifetime. The late Mr. Gladstone purchased considerable property in the neighborhood, and contributed very liberally to the Hawarden estate, after it became impoverished by the mismanagement of its agent a number of years ago.

The Delights of Photography

FRANK S. DOBBINS

Photography completely takes one's mind off from the things that bother and perplex. The amateur soon learns that in photography everything is exact and precise. He can do no guessing. Whether using the camera or at work in the dark room he finds that he must keep his mind to what he is doing, yet without any terrific strain. I fancy the amount of mental exertion needed is somewhere between that required for playing a game of checkers and that needed in a game of chess. Here again one finds something that gives that necessary change when one seeks real recreation.

This art is for all ages and for both sexes. It requires no especial strength nor yet any particular deftness, and it is so easy of acquisition that any high-school boy or girl can master almost every detail for all ordinary uses. This makes it possible for a whole household to participate in the recreation.

Herbert W. Taylor A HOME INTERIOR *Franklin Process Eng. Co.*

On Interiors

HERBERT W. TAYLOR

"The doors, that knew no shrill alarming bell,
Self-opened into halls, where, who can tell,
What elegance and grandeur wide expand,
The pride of Turkey and of Persia land."
—THOMSON.

NO greater mistake can be made than to consider photographing interiors to be simply a mechanical operation. There is certainly an opportunity for the exercise of one's artistic ideas in arranging the furnishings of a room, in selecting and hanging the pictures and draperies, and in choosing graceful shapes in furniture. A luxurious feeling of rest steals over the senses on entering an apartment where the *tout ensemble* breathes a spirit of refined taste, and where there is no discordant note to jar upon a sensitive nerve. Photography may not be placed upon a purely mechanical level amid surroundings so indicative of an artistic personality. The very atmosphere must inspire the photographer so that he will be, for the time at least, an artist.

But the execution of art requires mechanical action, and we must look to the details if we would properly reproduce the beautiful composition before our eyes. First, consider the lighting. As every room will have some dark spots, it will be best to make the exposure when the light is strong, and to arrange the window shades so that the dark corners will

be illuminated as much as possible. The great difficulty here will be to obtain an even lighting throughout the room.

Having arranged the general light to the best advantage, we will next see that there are no pieces of plaster, or other very light objects, placed where they will be in very strong light, thus causing them to make so vigorous an impression on the plate as to appear in the print as masses of high light, devoid of detail. Another danger point to be noted is in the reflections cast by the glass of pictures or of a clock face. By placing something — say a wad of paper — behind a corner of

F. W. Birchall BOSTON PUBLIC LIBRARY (DELIVERY ROOM) *Franklin Process Eng. Co.*

the frame, the slant at which a picture hangs can be so changed that the reflection will disappear. All reflections positively must be eliminated, as their presence in a photograph is a fatal blemish.

For the sake of securing a satisfying effect, some liberties may well be taken with the disposition of the furniture in the room to be photographed. A chair upholstered in light colors, or a table with a white scarf should not be allowed to stand in a strong light. Move the light pieces into the dark corners, and obtain an even balance of light and shade by placing the dark upholstery near the windows. Distortion may be avoided by changing the position of any chair or table which is too near the camera. Another effect to avoid is the crowded appearance of too many pieces of furniture. Both distortion and this crowded effect may be corrected by leaving a clear space directly in front of the camera.

Having prepared the room, let us turn our attention to the apparatus. There are two necessities — a wide-angle lens and non-halation plates. The expense of owning a wide-angle lens in addition to the lens used for general work need not be excessive, as a fair wide-angle lens, which will cover a 5 x 7 or 6½ x 8½ plate, may be purchased for from ten to twenty dollars. It would be satisfactory to have a fine lens, but, really, more stress should be laid upon the manner of using an instrument, rather than upon the purchase price.

The non-halation plates possess so great advantages over ordinary plates as to render them, practically, a necessity in interior photography. Halation is most frequently observed around a window. The strong light which comes through the window acts so much more quickly upon the plate than does the light reflected from the component parts of the interior, that a length of exposure sufficient to photograph the interior is much too long for the window. The result, when using ordinary plates, is that the stronger light penetrates the emulsion, passes through the glass and is reflected into the emulsion again. The refraction, caused by the thickness of the glass, causes the reflected light to spread, resulting in the obliteration of the lines about the window, and the blur of light with which we are all familiar.

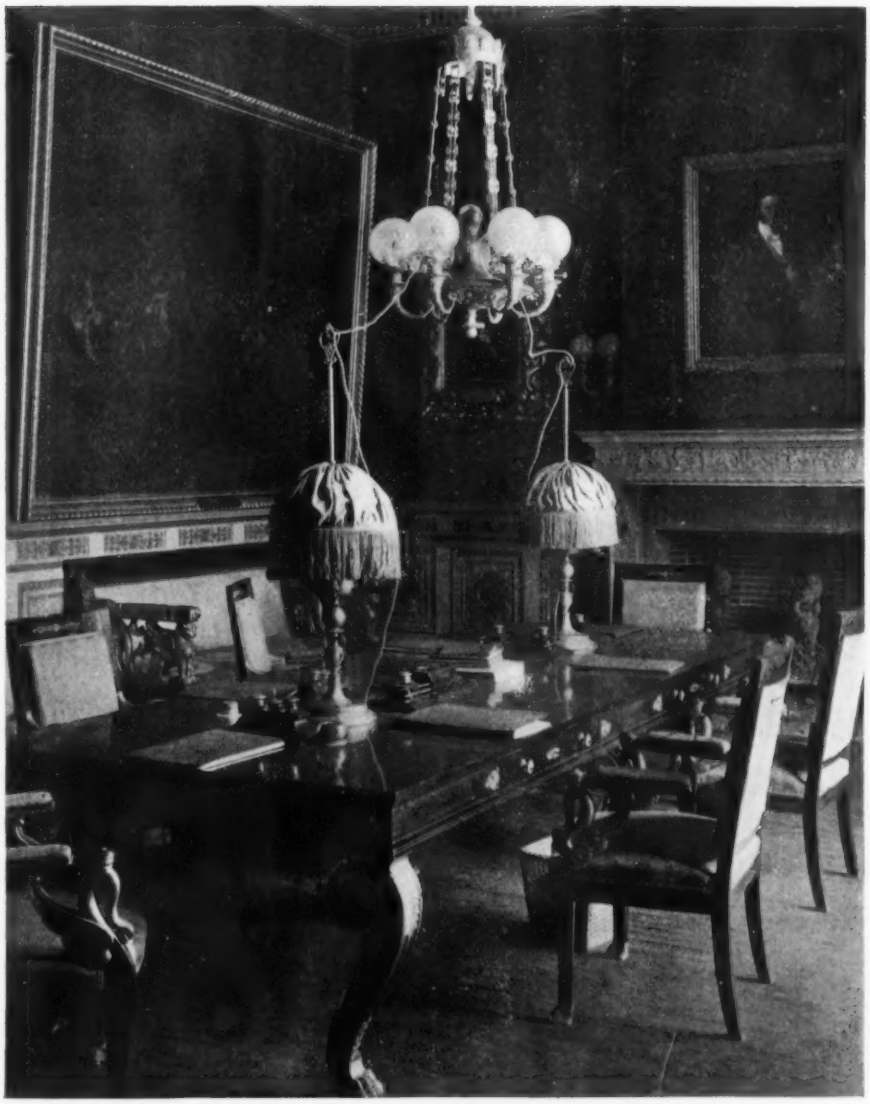
Various writers have told of their success in overcoming halation by the use of ordinary plates, backed with some black varnish or with black paper; but as the inside of the holder is itself black, it is not quite clear why there should be any advantage gained by the use of these expedients. It will be found to be better economy in the end to use the regular non-halation plates.

The secret of the non-halation plates is that they are double-coated, the outer emulsion being much more sensitive than the under one. The shadows and half-tones are photographed upon the more sensitive emulsion, and the high lights pass through it, but are stopped and held by the slower emulsion underneath. The high lights, being arrested by the slow emulsion, do not have an opportunity to pass through the glass and be refracted, with the resulting blur known as halation.

While the non-halation plates are correct in theory and are really a success, to a certain degree, still it is better not to rely upon their qualities to the extent of pointing the camera at an unprotected window.

Oftentimes one or more windows must be included in the view, and they are certainly a desirable feature of the picture, provided their frames are clearly defined and some trees, perhaps, are seen through the windows.

The best treatment is to darken



F. W. Birchall BOSTON PUBLIC LIBRARY (TRUSTEES' ROOM) *Franklin Process Eng. Co.*

the window by means of a dark portiere, or other dark cloth, which may be hung either on the outside or the inside of the window. If hung inside, it should be between the shade and the glass. Let the shade be drawn down about half way, and after an exposure sufficient for the interior view, remove the dark cloth, being careful not to move the shade up or down. When the shade has become quiet, make another exposure of a few seconds, and the lines of the sash and outside objects will be taken quite clearly.

An hour will frequently be consumed in adjusting the lights in a room and in properly arranging the

details, and an exposure with the smallest diaphragm — a necessity on account of the widely separated planes in the view — will require at least a half hour, with the slow non-halation plates.

Washburn CHRIST CHURCH, BOSTON

To avoid the long time of a daylight exposure, many operators use flashlights for interior work, but there is danger of the flash being reflected from unexpected quarters, and there is no way of detecting the trouble until the plates are developed.

If the room to be taken be a public library, a gymnasium, or other public room, where there are many windows, it will be impossible to darken all of those which face the camera, but the fact of there being so many windows will prove an advantage, inasmuch as where there is so much light, there can be no heavy shadows, and the exposure need not be long enough to cause halation.

Churches present still another phase of the subject. Ecclesiastical architects are fond of a dim, religious light, and while there are many windows there will also be deep shadows. However, the windows will probably be of stained glass, hence the danger of halation will be considerably lessened, although one must use his wits in such a case.

To avoid harsh contrasts with these plates, it is well to use a developer which is strong in alkali, and to bring out the halftones and shadows before the high lights have time to acquire great density. However, the length of exposure will largely control the manner of development, and experience alone will teach the proper course of manipulation.

In a word, while certain principles are unvarying there is vast opportunity for individual judgment to be used.

Charles F. Paine OCTOBER EVENING *Franklin Process Eng. Co.*

Mental and Moral Training in Photography

DARIUS COBB

I have noted the importance to photography of manual training in the art of drawing. In acquiring a mastery of the hand we develop the mental organs that govern the sight. We have seen that the practice of drawing from nature will increase the judgment for selection, and the judgment of the ultimate result. In this paper we shall consider the effect of mental and religious culture on the development of photographic art.

As with the sister arts, the production of photography will respond to the condition of the mind. If it is elevated by high culture the character of the work will harmonize with it. Here lies the importance of a general recognition of photography as an art. The cultured mind will see a legitimate field for the exercise of æsthetic judgment.

Those who fail to recognize photography as a fine art view it in its mechanical process, with no consideration of the mental force that is at the foundation of this branch.

There may be little effort of the mind in the crude photograph (crude painting must come under the same ban), but as the work of production is imbued with thought, the results are artistic, till finally the æsthetic expression is so great that a painting must be of high grade of art to equal it.

An eminent example of elevating thought in photography is seen in the collection of F. Holland Day. Not only in his remarkable heads of Jesus, but in his figures and secular heads, is the confirmation of the statement that the rendering of nature by any method in which the result is responsive to æsthetic thought is art; and as the thought is ennobling, so is the art. Mr. Day is not a man to theorize around a vital subject, but he goes directly to it with concentration. Words are not necessary to assure the beholder that his productions are works of art.

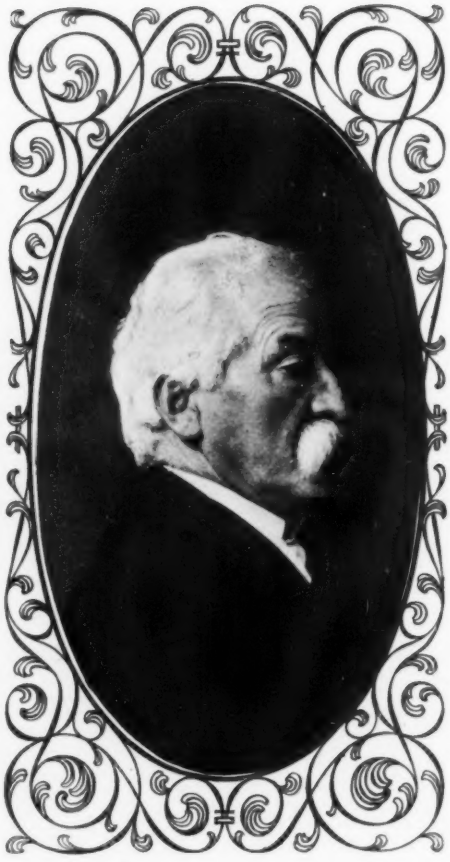
Appointed as one of the judges at the exhibition of the Brockton Camera Club, the writer had the privilege of studying works of art that indicated an appreciative study of nature in different phases. There were admirable figure pieces, the leading one of which would be a rare subject for a painting. In the landscapes, the effects produced were so thoroughly artistic that one might infer that the photographers had given special study to Corot, Daubigny and Duprey, including Constable, the father of them all. Here, in this collection, is a marked example of the rapid progress of photography through the camera clubs of the country. If the works of the Boston, the Cambridge, and other noted clubs should be analyzed, the influence of the intellectual and spiritual powers on the progress of photography would surprise the devotees of the art. The progress of the professional photographers, under the same conditions, was apparent to the writer in the exhibition at Copley Hall, last summer. When he viewed this exhibition he saw mind; and when he stood before the convention he saw that he was addressing men of thought.

It was on this mental basis that a French judge passed judgment in favor of photography as an art. This is very significant; for questions of law are decided — not on mere theories — but on principles founded on incontrovertible truths. Judges cannot be governed by prejudice; they must decide from facts, and truth is evolved from them.

In a recent case brought in one of the French courts the old question whether photographic portraits are works of art was revived. It seems a trader in issuing one of his prospectuses had used, by way of embellishment, the portraits of a number of actors and actresses, copied from photographs taken by M. Heutlinger, and he had sent copies to the persons represented. There was no doubt that they approved of the copying, but had they any right in the photographs? After a long course of argumentation the court decided in favor of the photographer. He was declared to be an artist in the eyes of the law; his art consisting in the posing of the figures, arrangement of the lighting and selection of the suitable moment for seizing the likeness. He had copyright in his plates, and the person represented, whether he had paid or not for the photography, could not authorize a reproduction of the plate. It was only by a written agreement that the right could be ceded. The photographer was awarded 500 francs as damages and the issue of the prospectus was prohibited.

With a comprehensive mind the judge framed his decision upon statutory law — the law of nature

Emma J. Fitz SWISS PEASANT BOYS *Franklin Process Eng. Co.*



C. E. Maxwell
A PORTRAIT STUDY

and the law of common sense. This decision goes to the root. It is for the photographer to show that the growth from this root shall be an inspiration to man.

All art is raised to its sublimest heights by the sacred element; photography is not excepted from this law. The means for rendering nature being perfected, the facts produced must be vitalized with inspiring thought. There can be no cessation of mental action, for thought is ever active to enrich these facts with ideal conceptions. The higher the motive, the nobler will be the results. This truth is being demonstrated by professional and amateur photographers of Europe and America. The action of the imagination is so complex and incomprehensible, it is impossible to define its limits. It concerns mechanical invention as well as the ideal.

Thus far, the æsthetic element of photography has advanced with the mechanical. The increase of facility through science widens the field of the imagination. The inventions of science are appropriated and made to serve the ends of æsthetic thought. In photography the practical and ideal will coöperate. The ideal inspires science to further discoveries, and science gives wings to the ideal for higher flights. The inspiration of the painter is enhanced by the enlargement of the means of expressing himself. So with the photographer. The character of his production depends not on manipulation. As with painting, manipulation may increase the artistic effects, or general technique, but the operator who is gifted with mental power and spiritual refinement will select his scenes in nature with atmospheric effects, and picturesque shadows, with equally picturesque compositions, that shall express his thought — combinations which a superficial mind would not even notice. In the posing of heads and figures, and adjusting them in forceable effects of chiaroscuro, the results will accord with the comprehension of the operator. No manipulation will change the conditions. The daguerreotype presents marked evidence of this truth, for in the process of its development no manipulation is possible. One daguerreotype, from which photographs are now taken, is presented as an eminent example of strong effects produced by power of mind. This

is the portrait of Judge Shaw, taken by Southworth and Hawes. The judge himself was a tower of strength, but it required a strong intellect to produce the remarkable daguerreotype which we now see represented by the photographs. The pose and light and shade are indicative of power comprehending power. William Hunt's portrait of Judge Shaw is a strong one, but in Southworth and Hawes' portrait is the absolute power of a crag vitalized by a human spirit. We can find nothing in the boldest work of the boldest portrait painter that equals this work for its expression of supreme power. That this was no accident is evinced by Southworth and Hawes' daguerreotypes of Daniel Webster, Ralph Waldo Emerson, and other eminent men. The female heads of these daguerreous were no less remarkable for their beauty in pose and chiaroscuro. They saw and they knew. They produced their work with minds of comprehension.

Certain sceptics affirm that art has naught to do with religion. On the contrary, the highest art of all ages has been founded on religion. When we consider that the soul of man finds true life only through religion, we can understand that art, which is born of the soul, finds in it the highest development. All the arts — music, poetry, architecture, painting, sculpture and photography — are subject to this law. Through the profane they crawl on the earth; by the sacred element they ascend heights of inspiration.

Richard Hines, Jr. *Franklin Process Eng. Co.*

Softly now the light of day
Fades upon my sight away.

Chemical Effect of Light

CHESTER F. STILES

ONE of the choicest relics of Old Boston is the beautiful display of amethyst glass in the windows along Beacon Street mall leading up to the State House. Some of the older inhabitants will tell you that once these windows were only ordinary panes, and as clear as the ordinary every-day glass. The explanation of this phenomenon is really very simple, as it is only the light which has poured upon these windows, for over fifty years, which has produced this effect.

Every lady knows the effect of light on a colored fabric, especially on those fabrics of later years, dyed with the aniline colors derived from coal-tar. In fact, one firm in England took advantage of this fact, and invented a process patented under the name of diazotype, which depended on the action of light upon an aniline product known as primuline.

Another typical example of light action is illustrated by the growth of vegetation. If a potato plant is grown in a cellar it has a sickly color, and struggles towards a window; but if placed outside in the open, it quickly becomes green from an intense coloring matter called chlorophyll, formed in the plant by the action of the sunshine.

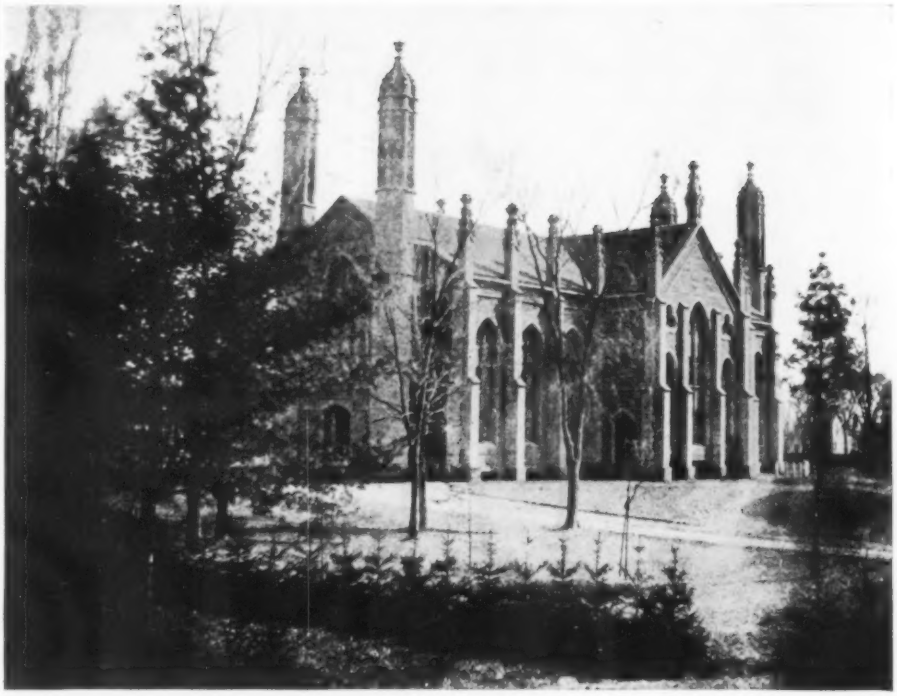
In pure chemistry there are many effects distinctly traceable to the stimulating power of light. A well-known but dangerous experiment, when in unskilled hands, is the union of hydrogen and chlorine gases by sunlight. The two gases, hydrogen, colorless and light; and the heavy green chlorine are mixed in a glass vessel in the dark. There is no action from this. In diffused light the gases unite, gradually forming hydrochloric acid, but if sunlight is thrown on the vessel they unite with explosive violence. In contrast to this, is hydriodic acid, which decomposes very easily from the same cause.

The chemical compounds sensitive to light are very numerous, but few are of practical importance. At the head of the list are silver compounds, especially chlorides, bromides and iodides, and compounds of iron called ferric. The metals — chromium and uranium — have salts upon which practical processes are based. Other processes have been suggested where the metallic bases were vanadium, cerium, cobalt, copper, nickel, etc., but the reducing action of light upon these compounds is infinitely small when compared to the silver. There is but one substance which approaches the sensitiveness of the silver salts, and that is the mercury-sulphophosphate described by Glatzel, of Berlin.

The most common salt of silver is the nitrate, formed by dissolving pure silver in dilute nitric acid. This was named "lunar caustic" by the alchemists who knew its blackening effect when touched to the skin.

A form of ore known as "horn silver" is one of the earliest known silver minerals. This substance, so called from its appearance, turns dark under influence of the sunlight, and excited greatly the curiosity of the German miners. It is nearly pure natural silver chloride.

Silver chloride is easily prepared by mixing a solution of silver nitrate with one of muriatic acid or common salt. A white precipitate falls, usu-



Josiah P. Cooke GORE HALL, HARVARD UNIVERSITY LIBRARY IN 1847 *Franklin Process Eng. Co.*

ally in large curd like masses, which settle quickly to the bottom. This is silver chloride, and if left in the sunlight for a few minutes will change to a purple color in a very short time. Ammonia will dissolve the chloride.

If a solution of potassium bromide or iodide is substituted for the muriatic acid, the resulting precipitate will be either silver bromide or silver iodide. These are slightly yellow in color, insoluble in ammonia (bromide slightly soluble), and do not change color in the light to the degree of the silver chloride. In reality, however, much greater changes have taken place in these substances than in the chloride. This action takes place with enormous rapidity, but does not show until a developer is applied; hence they are known as latent changes.

The visible changes in the silver compounds are strongest in the chloride, which turns very dark, and least in silver iodide, with the bromide intermediate. In fact, when silver iodide is pure, and in contact with an excess of potassium iodide, no change in color occurs. With the actual chemical change which reduction by development shows, the order is inverted. Silver iodide is first and the chloride last in sensitiveness to the light. There is also a difference in sensitiveness due to color. Thus, the chloride is strongly affected by violet, but hardly any by the blue; the bromide by violet, blue and green; and the iodide by violet and indigo only. By mixing certain dyes with these compounds, we are able to make plates sensitive to yellow and even to red; and it is also possible to photograph substances emitting ultraviolet light, which is a variety

that cannot be seen by the eye. Such a substance is sulphate of quinine, which in solution writes colorless on paper, but photographs photographs with greatest ease. This has been used in sending secret messages.

The solvent for these silver compounds is potassium cyanide — not used now on account of poisonous effects — and sodium hyposulphite, or properly, thiosulphate, as the other term is a misnomer. To Sir John Herschel are we indebted for this application, without which photography would have hardly progressed, since no cheap substitute for hypo has yet been discovered.

Before the days of real photography, Wedgewood, of the famous pottery family, and Sir Humphrey Davy, the eminent chemist, used to coat paper with a solution of nitrate of silver, and make copies of leaves and lace by aid of the sunlight. Fox Talbot improved on this method by coating the paper first with a solution of salt, and then floating on the nitrate solution. In this way he precipitated silver chloride in the fibre of the paper, and made a more sensitive surface.

Wedgewood and Davy made experiments of placing this chloride paper in a well-known instrument of that day, the "camera obscura," which we later generations have contracted into camera. It is curious to note that the instrument of today is identical, in every principle, to these older attempts.

Unfortunately for the experimenters, the silver chloride was not sensitive enough to show an image, even after several hours' exposure. Niepce, in France, solved the problem by coating plates with bitumen from the shores of the Caspian Sea, and after exposure, they were treated with oil of lavender, which dissolved all parts not affected by light.

Daguerre joined Niepce, and after the latter's death experimented on silver iodide plates, made by exposing a polished silver surface to the vapor of iodine. This process was very slow, since one waited for the visible image to appear. One day, so the story runs, Daguerre put some very much underexposed plates in a closet in his dark chamber, and on reopening it some time later, was amazed to find a strong image on the plate. He then removed his chemicals from the closet, one by one, putting in fresh under-exposed plates, until he discovered a dish of mercury standing on the floor. Further experiment showed this to be the agent which made the image appear. This accident was the birth of the developing process.

The daguerreotype process had the disadvantage of being a positive one, that is, it required a separate exposure for each picture. Talbot overcame this objection by substituting a paper support for the polished silver plate, on which he precipitated finely divided silver iodide. A short exposure was all that was necessary, because the image was brought up by means of a development in gallic acid.

We in America will be interested to know that some of these first paper negatives were made in and about Boston at about 1847 by the late Prof. Josiah P. Cooke, of Harvard University. The reproductions show the perfection of this process. Through the courtesy of the Harvard Library, the author has been able to make a print of this for reproduction. Similar effects may be produced at the present time by exposing bromide or velox papers in the camera, and making them translucent after development. Negatives of this nature are superior in the complete absence of halation.

It is but a step from paper to glass as a support for the negative

image, which was embedded in an albumen coating. The next experiment was the substitution of collodion, then newly discovered, for the albumen. All these processes were the same in principle, the sensitive material being silver iodide, and the developer gallic or pyrogallic acid.

All these earlier processes were dependent upon a damp coating, and are classed under the general name of wet plates. The operations involved handling of large quantities of silver chemicals, which left indelible black spots on the skin and clothes. Just so long as this condition lasted, photography was a pastime of only a few.

Amateur photography had its birth at the invention of the dry plate. In this, the coating is gelatine, and various drying agents are introduced, which will preserve the emulsion almost indefinitely, if proper precautions are taken.

Compounds of silver are not the only substances susceptible to change under the influence of light. Iron compounds were utilized for printing purposes in early days by Sir John Herschel, whose researches form the basis of the modern blue papers. These are dependent upon the reduction of a salt of iron in the so-called ferric state to the ferrous salt. A uranium process is somewhat similar, and upon the peculiar property of potassium bichromate, when exposed to the light in conjunction with gelatine, in making the latter insoluble in water, depends the whole series of heliographic or mechanical reproduction of photography.

S. I. Carpenter *Franklin Process Eng. Co.*

A MARINE STUDY, WITH CLOUD EFFECTS, AT SWAN'S ISLAND, ME.

5 P.M. Exp. 5 sec. 164 Stop. Cramer Iso. slow plate.

Landscape Photography in Parks

GEORGE R. KING

IN 1889, while residing in California, through the inability of a creditor to meet his obligations, I came into possession of my first camera. Brought up in New England, a love of nature was instilled in me as a boy, which later on was encouraged by the beautiful valleys and rugged mountains, by which my California home was surrounded.

My new friend, the camera, helped to increase the flame within me, and many a day was spent with no other companion than my camera and a shepherd dog, following the streams up rugged cañons, until stopped by some precipitous wall of granite, over which poured a lovely sheet of clear water. It was one of these beautiful waterfalls, which are so common in the Sierra Madras, that furnished material for my first picture. The negative is still in my possession, and I have made many poorer ones since. Not long after this, I left the plow, and have since attempted to realize, what we have all dreamed of, "Art in Photography."

"How do you do it?" is a question often asked, and quite a difficult one to answer. The making of pictures by one who must constantly consider the money side of the question is not easy of accomplishment. In fact, many professional photographers, especially landscape men, from long practice of getting dollars out of their work, have killed whatever of artistic sense they may have possessed, and have stamped nearly every print they make with a dollar-mark. Here, it seems to me, the amateur has a decided advantage. He never thinks of money in making his negatives. His thought is, how to make a picture that shall satisfy his sense of what real art is; and if that sense has been developed, the result will be a picture which will be a delight to all who look upon it.

In 1894, on returning from California, I began a study of the parks in Boston and vicinity, from the picture standpoint, which I have since extended to New York, Philadelphia, Baltimore and Washington. By coming in contact with landscape architects and those in charge of the parks, it was made plain to me that photographs might be made useful in showing features in park construction. Then began the collection of a series of original negatives, which, when the work is completed, will be used as a work of reference by those who may be interested in the development of public reservations. Most of the views with which the report of the Boston Park Department has been illustrated, for the past four years, have been from my negatives.

In pictures of this kind there are some things which are essential to the production of a good negative. First, let me say, for the encouragement of the man of limited means, that an expensive outfit is not one of them; especially is this true of the lens. Nearly all of my park work has been made with a short-focus Darlot, which cost me $20, and if I could not replace it with another as good, of the same make, I would not exchange it for any one of the high-priced lenses.

Little need be said of the camera. There are many good ones, which if intelligently handled will give satisfaction. It is when we come to consider plates and chemicals that care must be exercised. What

George R. King
IN GREEN PASTURES (DRUID HILL PARK, BALTIMORE, MD.)
Franklin Printing Engraving Co.

George R. Kline

IN GREEN PASTURES (DRUID HILL PARK, BALTIMORE, MD.)

Franklin Process Eqpt. Co.

plate do you use? or, What is is your developer? are familiar questions to every photographer. The market is flooded with brands of plates, most of which are good. But my preference is the "Hammer." Always reliable, firm, and easily manipulated.

You have doubtless seen a little book in which to keep a record of exposures and conditions under which negatives are made. There may be advantages in the use of such a book. But my observation has shown me that most of those who are insistent upon keeping an exact record of the length of exposure, under-time their negatives. There is no rule which can be safely followed in timing plates, unless it be this: Know your plate thoroughly, and (provided you know your lens) when you think your time is about right give another second to make sure, and then develop, knowing that your plate is fully timed. The result will be, if the developer suits the plate and exposure, a negative with good printing quality, soft, and at the same time crisp and rich.

I have been asked how I reach my point of view. Look at the illustration for this article. It was made after a long tramp on a warm day, climbing first one elevation and then another, until I had nearly reached the edge of the reservation. Suddenly, coming toward the roadway from one of these climbings, my eye caught the view with the sheep in the foreground and the pine grove in the distance, with the winding roadway between. This satisfied me.

S. I. Carpenter ECHO BRIDGE PARK, NEWTON *Franklin Process Eng. Co.*

VELASQUEZ.

Artistic Lighting and Posing – Velasquez

FRANK W. BIRCHALL

THREE hundred years ago the great master, whom Spain has delighted to honor, was born at Seville, in that country, on the sixth of June. It is a point worthy of remembrance that Rembrandt, the painter I spoke of last month, was born some eight years later and that, in due course, there were two painters whose lives ran parallel, as it

Velasquez COUNT OF BENARENTE

Velasquez INFANTE MARGUERITE

were,— the one in sunny Spain, affected, undoubtedly, by the semi-tropic climate of that beautiful country; the other in the Netherlands, much further north, whose air is clear and cool.

Even in our northern climate, comparing one day with another, you may perceive something of the difference of conditions which impressed these two painters. Go into the country on a warm sunny day in early July before the leaves have become old, a day when the drowsy murmur of insects is in the air, when the sunlight lies as if asleep upon the hillsides and the outlines are all aquiver seen through the heated air; a lazy day, a day of dreams when life is full of the glow of color seen in the blue sky, the green fields and trees, purple shadows, and hills blue through the summer haze,— then you may realize to some extent what the climate of Spain is— that land where it is always afternoon.

On the other hand, take a day in early June, when the sky is very blue and filled with flecks of clouds driven by the wind. On going out you realize that the wind is keen and cold, that the details of the scene are clearly and sharply defined, that the distant hills seem near, and, as you try to form an estimate of the quality of the outspread picture, you find the idea of metallic hardness and glitter coming uppermost in your mind.

Now, Velasquez lived under conditions more usually represented by the first set I have attempted to describe, and Rembrandt more frequently saw nature under the second set. And in my mind the artistic performances of the two men produce similar differences of feeling as do the different aspects of nature,— Velasquez, warm and shadowy; Rembrandt, cool and clear.

Do not think that because I do not set down mechanical details of the paraphernalia of the commonplace studio of the photographer that therefore I am straying from my subject. Believe me, every passing breeze, every fleck of cloud-cast shadow, every sound and sign of nature is not without interest to the student of the matter we have in hand. You must be alive to the slightest variation of tone and temper, seeking to know what they mean, what definite impression is produced upon your mind by them; then, gradually and insensibly, the music of nature will reproduce itself in

your work to be seen and read there by those who can understand, though never to be understood by those whose minds are petty and small.

Furthermore, this knowledge is not to be obtained except by your own personal study of nature. It cannot be learned from a master; for if you thus attempt it you will find that in the upshot you will have learned — not nature — but your master's view of nature only. Velasquez felt this; Rembrandt felt it; Holbein, Durer, Titian, Turner, all great painters, have felt it; and of their pupils one says simply, "he painted in the manner of this or that master." And in consequence of this, Velasquez sought to paint what his observation of nature showed him,— painted his interpretation of the models before him. But he did not disdain the work of other great masters either. He studied in Italy, though not till after he had gained such skill as drew the attention of the then richest court in the world. So, too, I would urge my readers to study constantly the works of great artists, not in the spirit of servile copyism, but to draw inspiration from their inspiredness, to have your love of nature quickened by theirs, and to keep your own flame burning brightly by communion with them.

I have selected for you three examples of the work of Velasquez— one of them his own portrait. In pose the master does not differ from those ideas prevalent with painters, and already treated of — simplicity, dignity, and ease. His pose of the Infante Marguerite is a favorite one with him for children. That of the Count of Benarente is full of suggestion. Note the line of the curtain and its relation to the lines of the scarf and of the left arm. Find out to your satisfaction why the right hand is laid on the helmet instead of being placed easily on the table beside it. Remember this man is a warrior. Do not pose a modern business man with his hand on a Greek vase or a roccoco cabinet. Try to select such accessories as are consistent with the character of the man you are picturing and keep them subdued, as does our artist. Avoid anything looking like a map of a portrait, but strive to achieve character. It is not necessary that it should be a hazy, indistinct suggestion either. Know why the mass of the curtain behind the knight is a simple, dark mass; and how the painter has managed to keep everything in subordination to the head of the figure. Even in the child's picture the face is the first object of attention, a result attained by the utmost simplicity in the treatment of the dress.

H. A. Beasley *Franklin Process Eng. Co.*

Open Criticism

We publish another photograph for open criticism. Use a postal card, and limit yourself to one hundred words. A year's subscription, free, to the PHOTO ERA for the best criticism.

Out of a large number of criticisms received on the Flower Pictures, published in the June issue, we cull the following as being the most satisfactory. The award goes to Walter Beals.

"Flower Studies." Same objection applies to both Fig. 1 and Fig. 2. There is no detail visible in either, the flowers being a mass of white in both. Arrangement of flowers is too one-sided, giving to both studies the effect of being about to tip over. By a different arrangement of flowers, and the use of more side light, both these defects will be eliminated and the effect much improved. WALTER L. BEALS,
Middleboro, Mass.

Regarding the Flower Studies of June issue, I would say that a ray filter and an isochromatic plate were the most needed of anything. As produced, the flowers are simply black and white outlines, and show no intimation of color. Who ever saw white golden-rod? — an effect due, in this case, to too long exposure and to too dense development. To be a success, flowers should show some light and shade and gradation of color. Very truly yours,
C. H. DICKINSON, Minn.

There is an absence of half-tones in the picture, indicating too much light too evenly distributed. The groups appear top heavy, from too many flowers being introduced. Half the number of flowers, in each case, would have given a much more artistic result. For flowers of this kind, a larger and lower vase would have been better.
C. M. WHITNEY,
Westminster, Mass.

NEWCASTLE ROAD, ME.

Along the roadside, like the flowers of gold
The tawny Incas for their garden wrought,
Heavy with sunshine droops the golden-rod.
— WHITTIER.

Among the Clubs

Providence Camera Club

The annual meeting of the Providence Camera Club was held in its rooms at 174 Weybosset Street, Providence, R. I. The proposed amendments to the constitution and by-laws were adopted and took effect upon their passage. Mr. Fred P. Wilbur was reëlected as President; the other officers being W. Penn Mather, Vice-Pres.; A. F. Manchester, Recording Sec.; J. E. Davidson, Cor. Sec.; E. J. Darling, Treas.

The N. E. L. S. E.

The annual meeting of the New England Lantern Slide Exchange was held in the rooms of the Providence Camera Club, on June 16, 1899. Delegates were present from New Haven Photographic Society (Dr. W. G. Alling); Mystic Camera Club, Medford, Mass. (G. W. Prowse); Valley Camera Club (Ward E. Smith); Winorski River Camera Club, Essex Junction, Vt. (F. J. Chatterton); New Britain (Conn.) Camera Club (Will C. Eddy); Providence Camera Club (J. E. Davidson). Dr. Alling presided and F. J. Chatterton was elected as secretary for the ensuing year. Arrangements were discussed and rules made for an annual exhibition of photographic work in the Exchange, for which prizes are to be awarded, and for a Club Print Exchange.

On Saturday morning the Providence Camera Club, having for their guests the delegates of the N. E. Lantern Slide Exchange, had an enjoyable outing by special electric car to Howard, R. I., thence by barges to Cranston Furnace, The Glen, and so to Phœnix, where the delegates from the Valley Camera Club were met and dinner served at the Briggs House. The afternoon was pleasantly spent with the camera and the return to Providence made in the pleasant evening light, arriving there about seven o'clock.

Haverhill Camera Club

The annual meeting of the Haverhill Camera Club was held Tuesday evening, June 13, and the following officers were elected for the ensuing year: President, Chas. W. Glines; vice-president, Geo. E. Dodge; secretary and treasurer, Alfred E. Collins; executive committee, E. H. Lufkin, Wm. H. Burke, and officers.

The club enters on its second year in a prosperous condition and with an increased membership.

ALFRED E. COLLINS,
Secretary.

Detroit Camera Club

Our representative in Detroit reports the camera club there to be in a very flourishing condition. Club rooms been recently fitted up with desk rooms, a picture gallery for exhibition purposes, reading room, lockers, etc. They are located in the Van Husen Studio Building on Miami Avenue, near the centre of the city. The third annual exhibition, which was recently held, proved a great success.

New Haven, Conn.

The New Haven Photographic Society has elected the following officers: Dr. W. G. Alling, president; J. R. McCusker, vice-president; M. C. Ferguson, treasurer; F. J. Chatterton, secretary.

[We beg to call attention of our correspondents to the fact that our magazine goes to press promptly on the 25th of each month. All matter intended for publication should reach us each month before that date.]

Photographers' Association of America

NINETEENTH ANNUAL CONVENTION

Lake Chautauqua, July 17-22, 1899

ADDRESS BY F. W. GUERIN, PRESIDENT

Don't read this, you who regularly attend our P. A. of A. Conventions. To you I have nothing to say, you are already on the smooth road of success; but to you who never attend our conventions, to you who are still on the rocky up-hill road of trying to make a good living by the aid of photography, to you I take this opportunity of saying a few words. This is an age of competition, and competition is based on the time-proven theory of the "survival of the fittest."

The one who buckles to with the earnest desire to one day be "Somebody" in our profession, must acquire knowledge by paying special attention to details, and if he has not the natural gift of originality, try and imitate those who have. Remember that a good copy is better than a bad original. By attending the convention you will have an opportunity of comparing your work with that of others, and you will see that no matter how well up you are in the business you can always find place for improvement. Everybody who has ever attended our conventions will uphold my assertion, that every convention held yet has been of inestimable value as a teacher to the individual attending. Our convention is a true mirror of the progress in photography on this Continent. In this age of perfection and competition there is no middle way of success. It is all success or all failure. Which will you choose? Would it not pay you to expend a few dollars which will enable you to defray the expenses of a very pleasant lesson by attending our convention? I have reliable information that the American Aristotype Co. have arranged with Professor Griffith to give some of his inimitable lectures on Art. I, for one, must acknowledge that I have gained more information from him in the few lectures that he has delivered at our conventions, recently, than I have at all prior conventions that I have attended. I, therefore, take off my hat to him, as I feel that he has taken me from darkness and given me light.

We will also have Professor Taft, of Chicago, an artist of renown and ability, who is spoken of very highly by members of our craft, to criticise our exhibits.

Professor Lawrence, of Chicago, who makes a specialty of large flashlight pictures, 28 x 40, will have an exhibit and will also make a picture of the convention by flashlight. It will be worth while going to see his pictures, even if we had not so many other attractions. The flashlight is the coming light for photographing large balls, assemblies, groups, machinery, etc., and you will have an opportunity of seeing how Professor Lawrence utilizes it in his business.

You know very well — if not by actual experience, at least by hearsay — how ably pleasure is combined with useful information at our conventions. You need to get away for a few days, from underneath that skylight of yours, to have a good time with your fellow craftsmen, as much as you need a few pointers to awaken you from your photographic lethargy, to open your eyes to what has happened in the photographic world since you last attended a convention. It

I. Orlando Trippe

AN ALABAMA NEGRO HUT

M. S. Terwilliger AN UP-STATE HOME, N. Y. *Franklin Process Eng Co.*

will do you good morally, physically and mentally, to get out and mingle among your fellow workers. Remember the "Stay-aways" are generally the "Know-it-alls," who in turn become the "Has-beens," who are easily left behind or out-distanced by the more alert, wide-awake workers who keep their eyes and ears open, and from catching a glance here and a sound there, build up a reputation that knocks the "Regular stay-at-home" fellow out of the ring in one round, and dumps him squarely on the ground of oblivion. Which class do you belong to? Can you afford to stay away from the splendid opportunity to see, hear and learn, and have a jolly good old time into the bargain? You might just as well make up your mind right now to be on the side of progress, and to be among those who participate in the onward and upward march of photography. Come one, come all; let us make this convention the banner one, to which we shall all be able, in after years, to point with pride.

F. W. GUERIN.
President.

The coming convention at Celoron is, without doubt, going to be the best one ever held.

The railroad rate will be one and one-third fare, on the certificate plan, from points east of Jamestown, and one fare for round trip from points west. All ticket agents in the territory of the Passenger Associations have received their instructions, and your local agent can supply you with needed information. See large posters (at all stock houses) for description and locality of the following hotels. It is the secretary's business to furnish information. He is put in office for that purpose. He is at your service.

GEO. B. SPERY,
Toledo, Ohio.

LIST OF HOTELS AND RATES.

The Greenhurst, P. O. Address, Jamestown, N. Y.,	$2.50
Kent House, Lakewood, N. Y.	2.50
The Waldmere, Lakewood, N. Y.	2.50
Saratoga Cottage, Lakewood, N. Y.	1.50
The Cowing Cottage, Lakewood, N. Y.	1.50
Humphrey House, Jamestown, N. Y.	$2.00 to 3.00
Sherman House, Jamestown, N. Y.	2.00 to 3.00
Everitt House, Jamestown, N. Y.	1.50 to 2.50
Hayward House, Jamestown, N. Y.	

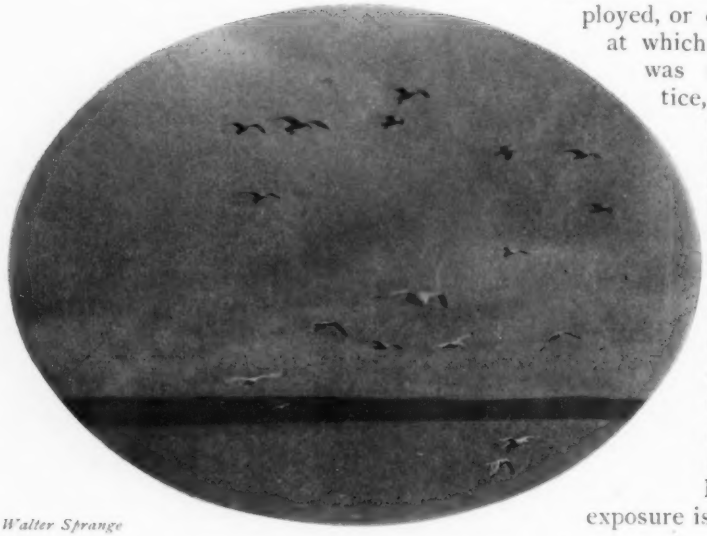
Instantaneous Photography

In our April issue, we called attention to the pictures of soaring birds in the Cabot Competition, which were exhibited at the rooms of the Boston Camera Club from March 8 to 18, this year.

The competition was instituted with a view to the possibility of these photographs offering some data which might prove useful in solving the problem of ærial navigation.

The prize for the best picture of a bird in the act of soaring was $100, while the second prize, $50, was offered for the largest collection of pictures of soaring birds. We are pleased to reproduce, in this issue, two examples of the pictures submitted, the work of Mr. Walter Sprange, the editor of the "Photographic Blue Book."

These examples show some blurring, caused, no doubt, by movement of the body or wings during the exposure. But the immediate cause we believe to have been the shutter employed, or else the speed at which the shutter was set. In practice, we believe the most satisfactory results have been reached in this kind of work, with exposures varying from one four-hundredth to one one-thousandth of a second. In short, the exposure is everything.



Walter Sprange

PHOTO ERA

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VALLEY CAMERA CLUB, Phœnix, R. I.

HARVARD UNIVERSITY CAMERA CLUB,
Cambridge, Mass.

VOL. III JULY, 1899 NO. 2

After the Maytime and after the Junetime,
Rare with blossoms and perfume sweet,
Cometh the round world's royal noontime,
The red midsummer of blazing heat.
[WILCOX.

It is July, the season of the year when the best opportunities for the camera are presented. Where the waters sparkle, where the flowers bloom, and the trees spread their shadows, there the camerist delights to be. No form of recreation or work is so full of the purest enjoyment. The art of making things picturesque, of reproducing nature in her varying moods, is sure to grow more and more attractive to the real enthusiast and true lover of photography.

Photo-Chemistry. In this number, we begin a series of articles on photo-chemistry, which we plan to continue for some time to come, and in which we hope to cover nearly all the photographic phenomena, especially including the very latest achievements. The chemistry of development, the search for new developers, the theory and practice of the colored transparency plates, etc., are some of the subjects to be treated in the near future. We wish to express our earnest thanks to the Harvard University Library for permission to reproduce the valuable photographs of the late Professor Cooke. They are among the first score of photographs ever taken in this country (by photographs we mean prints from negatives in distinction to prints made from daguerreotypes) and are treasured among the choicest possessions of the library.

Photographers' Association of America. We are pleased to reproduce, in this issue, the interesting address of President Guerin to the Photographers' Association of America. It is a plain, concise and very convincing statement, and ought to result in an increased attendance at the Celoron Convention, this year, which is set for July 17 to 22, inclusive. The opportunity afforded by this annual gathering of the leading minds in the profession can hardly be overestimated. The convention is in the hands of live men, and is sure to be a distinct benefit to all who assist at it. The School of Photography will be held under the auspices of the well-known American Aristotype Co., of Jamestown, N.Y., which is a guarantee of high standards and unqualified success. We urge upon all our professional readers the necessity of improving this golden opportunity.

Ourselves. We quote the following from one of our English contemporaries. "The American photographic journals get steadily worse. Some of them are entirely made up of cuttings from English periodicals, others rather less so; but, in nearly all, there is a marked absence of original contributions, etc." These charges of our contemporary are rather sweeping, but very characteristic of the blunt Britisher, who speaks his mind right out, no matter whose feelings are hurt. While there may be some reason for this criticism in the older American photographic magazines, the newer and more up-to-date publications, like the PHOTO ERA, *Photo Miniature*, *Camera Notes* and others, are not open to this charge. An examination of their pages will show a series of original articles on the subject of photography and art that will compare very favorably with that of any English publication for originality. We trust our English contemporary will at least qualify the above statement.

Two new comers in the field of photographic journalism have reached us this month among our exchanges. *Photographic Life*, published by the Photographic Life Publishing Co., Nepera Park, N. Y., and a magazine entitled *Photography*, published by R. W. A. Simmons, of Pittsburg, Pa. Both publications are creditable; the former being very tastefully gotten up, and is edited by Walter Woodbury, Esq., late editor of the *Photograpic Times*. We wish for them both a prosperous and happy future.

Messrs. Dame, Stoddard & Kendall, of Boston, continue to attract the attention of the amateur trade with the excellence of the photo supply stock which they carry. For years they have stood among the first in the city in this line, and we are glad to note the well-deserved success which they have achieved.

We have received from Messrs. Benj. French & Co. a copy of their new catalogue of Darlot lenses, of which they are the importers. A full account is given of the various kinds of lenses made by Monsieur Darlot, comprising Portrait, Lantern, Ferrotype and Gem instruments, and the new Symmetrical Anastigmatic lens, of which very good accounts are given as to performance. Besides these you will find information about Mr. Darlot's wide hemispherical lenses, stereoscopic lenses, focussing glasses and condensing lenses, and also much information in tabular form concerning distances and size of pictures for lanternists; hints on focussing and the care of lenses and shutters.

We take pleasure in printing this letter for the benefit of our readers. It was entirely unsolicited and speaks for itself.—[ED.

MINNEAPOLIS, MINN., June 19, 1899.
THE PHOTO ERA PUB. CO.

Gentl'men,— In May number of PHOTO ERA was inserted my ad. in Exchange and Mart. I had a large number of replies, and made exchange with Mr. Vincent Meakin, of Cleveland, Ohio. The exchange was highly satisfactory on both sides. I am more than pleased with an 8-in. Columbian polisher in excellent condition, and Mr. Meakin writes he is perfectly satisfied with the goods I sent him. It surprises me, with the large circulation of PHOTO ERA, that Exchange and Mart is not made use of more than it is. Thanking you for being the means of exchange, I am, H. W. HOWLING.

FOR SALE.—To highest bidder, Cycle Poco No. 1, with three extra plate holders, in almost perfect condition; list, $28.00. LOUIS A. DYAR, Winona, Minn.

FOR SALE.—6½ x 8½ Gundlach Rectigraphic lens, fitted with Prosch Triplex shutter. Lens does good work on 8 x 10 plate. Double combination 11-inch focus, back combination 17-inch focus, and front combination 23-inch focus. A. E. LEAVITT, Vernon, Ind.